**Klorsept & Klorkleen**

* **Sodium Dichloro-isocyanurate - known as NaDCC**
* **NaDCC is an organic chlorine donor**
* **NaDCC is not a hypochlorite
- it has unique properties**

 **(Hypochlorites are the salts of hypochlorous acid. Such as sodium hypochlorite (chlorine bleach and calcium hypochlorite.)**

* **It is a fast acting, powerful biocide**
* **Tablet size from 50mg finished weight to 19g.**
* **Mainly 50:50 NaDCC: Effervescent Base.**
* **Packaged in aluminium foil strips or tubs**

**Validation Results**



**The Chemistry of Sodium Dichloroisocyanurate / NaDCC**

***……NaDCC creates an acidic solution with >90% active chlorine***

* **Dissolve in water & releases hypochlorous acid (HOCl) and monosodiumcyanurate (a non-toxic biodegradable compound).**
* **HOCl is the biocidal agent**
* **HOCl similar structure to water (HOH) therefore less resistance to penetrating the cell wall**

 **Hypochlorites 10% active chlorine: pH 9.5 (av**)

 **NaDCC / TCCA >90% active chlorine: pH 5.5 – 6.5**

**HOCL - available Chlorine**

**NaDCC : the Residual Killing Power**

NaDCC dissolves in water to release HOCl : measured as available chlorine

* The ratio of “free” and “combined” available chlorine always remains at 50:50
* As “free available” chlorine is used up (e.g. organic matter, microorganisms, etc) the balance is disturbed
* Part of the “combined” available chlorine is then “freed” to restore the 50:50 ratio
* This happens until all the “combined” available chlorine is used up
* This is unique to NaDCC

**HOCL - available Chlorine**

 **50% 50%**

 **Free Combined**

**In Equilibrium**

HOCL: 100% available chlorine

*50% of the “total” available chlorine is actually present as “free” available chlorine*

*The remainder is “combined” in the form of mono – or dichloroisocyanurate*

*Undissociated*

*Dissociated*

HOCl

H+ + OCl -